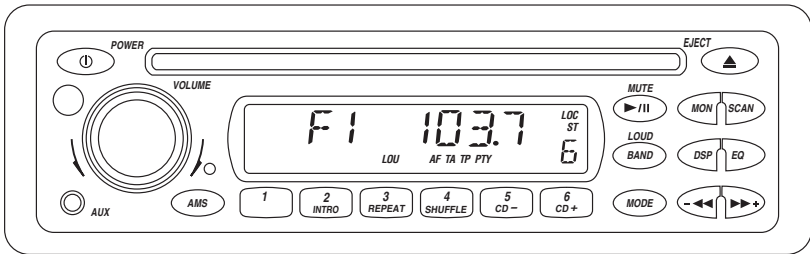


Installation and Operations Manual



M3200CD AM / FM and CD Stereo Receiver with CD Changer Control

**LINEAR
SERIES**

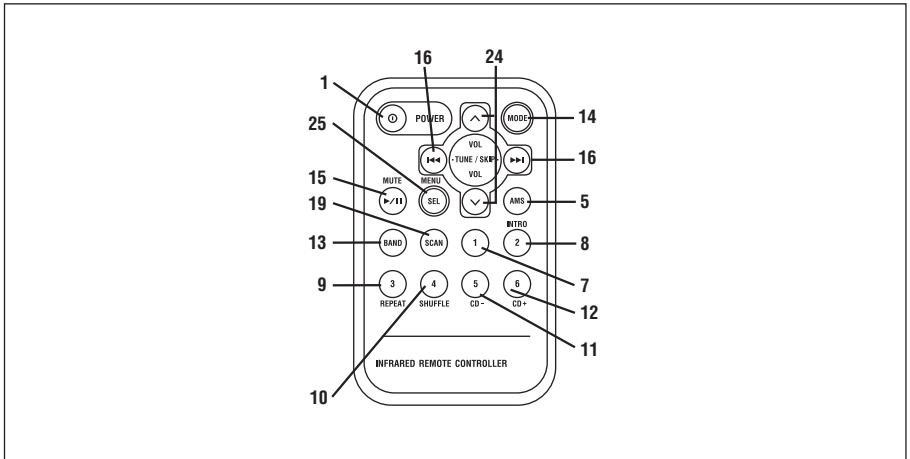
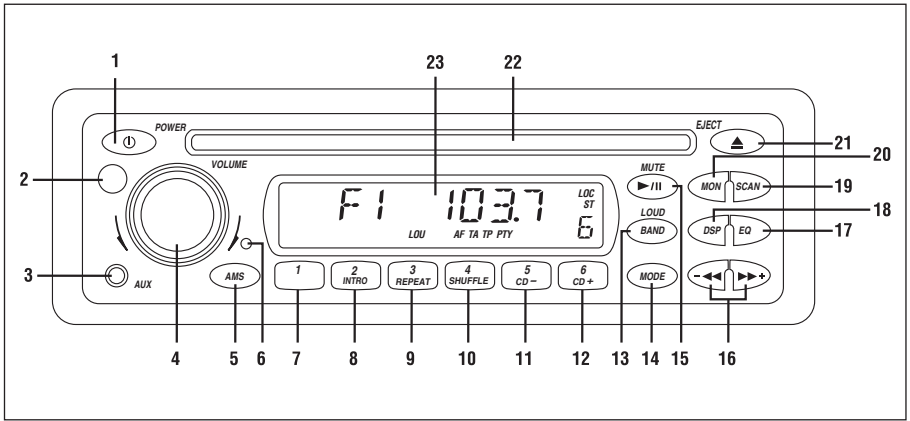
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Introduction

Your new M3200CD indash entertainment system has been designed to give you many years of listening pleasure. Take a moment to read through this manual and become familiar with the operations and features of this outstanding product.

It is advisable to keep this manual in your vehicle so it is readily available for reference. Be sure to fill out and send in your warranty card to ensure that you receive the full benefits of warranty repair in the unlikely event that your system will need service. We are confident that you will thoroughly enjoy your new mobile entertainment system.

Location and Function of Controls at a Glance



Location and Function of Controls at a Glance

- 1. Power On/Off:** Turns the unit on and off.
- 2. Infrared Sensor:** Receives the signals from the remote control allowing you to adjust the basic functions of this unit.
- 3. Auxiliary Input Jack:** Allows you to listen to an auxiliary input audio source, such as a portable MP3 player or cassette player.
- 4. Audio Control Knob:** Adjusts the Volume, Bass, Treble, Balance and Fader.
- 5. AMS Button:** Automatic memory storing and preset scan.
- 6. Reset Button:** Resets the microprocessor.
- 7. Radio Recall Button 1:**
 - Radio:** Recalls memorized radio station. Programs a radio station into memory.
- 8. Multi-Function Button 2 - Intro:**
 - Radio:** Recalls a memorized radio station, and programs a radio station into memory.
 - CD:** Plays the first ten seconds of each track.
- 9. Multi-Function Button 3 - Repeat:**
 - Radio:** Recalls a memorized radio station, and programs a radio station into memory.
 - CD:** Continuously repeats the same track.
- 10. Multi-Function Button 4 - Shuffle:**
 - Radio:** Recalls a memorized radio station, and programs a radio station into memory.
 - CD:** Plays all tracks on the current disc in random order.
- 11. Multi-Function Button 5 - CD - :**
 - Radio:** Recalls a memorized radio station, and programs a radio station into memory.
 - CD:** Selects the preceding disc in external CD changer.
- 12. Multi-Function Button 6 - CD + :**
 - Radio:** Recalls a memorized radio station, and programs a radio station into memory.
 - CD:** Selects the next disc in external CD changer.
- 13. Band / Loud Button:**
 - Radio:** Selects the desired radio band in the following order: F1, F2, F3, AM.
 - Radio / CD:** Enhances high frequency and low frequency sound quality.
- 14. Mode Button:** Selects between tuner, CD player, auxiliary input and CD changer modes.

Location and Function of Controls at a Glance

- 15. Play / Pause Button:** Starts / pauses disc play.
Mute Button: Mutes audio level.
- 16. Tack Up / Track Down Buttons:** Adjusts the radio frequency, changes CD tracks and sets the clock.
- 17. Equalizer:** Selects preprogrammed equalizer settings in the following order:
FLAT, CLASSICS, POP M (Pop), and ROCK M (Rock).
- 18. Display Button:** Displays the frequency momentarily, then will revert to displaying the time.
- 19. Radio Scan Button:** Scans up for next strong station, then pauses 5 seconds and scans up again.
Once the desired station is found, press the scan button again play that station.
- 20. Mono:** Changes the unit from Mono to Stereo.
- 21. Eject Button:** Ejects the disc from the CD Slot.
- 22. CD Slot:** Insert a CD into slot with label facing up.
- 23. Display Area:** Displays radio, clock and CD functions.
- 24. Audio Control Buttons:** Adjusts the Volume, Bass, Treble, Balance and Fader.
- 25. Audio Control Selector:** Selects the Volume, Bass, Treble, Balance and Fader controls.

Radio Operation

Select a Band

In Tuner Mode, press the “BAND” button (13) to select the desired band in the following order: F1, F2, F3 and AM. Each band can store up to six preset stations.

Tuning

Automatic Search Tuning: Press the “TRACK DOWN” or “TRACK UP” (16) button to move to the next or previous station automatically.

Manual Tuning: Press and hold the “TACK DOWN” or “TRACK UP” button (16) for more than 4 seconds then release, MANUAL will appear in the display area. Then press and release the “TRACK DOWN” OR “TRACK UP” button (16) until desired frequency is selected. The unit will default back to AUTO tuning mode after 5 seconds of no button activity.

Automatic Memory Store: Selects six strong stations and stores them in the current band. Select a band (if needed). Press and hold the button “AMS” button (5) for more than three seconds. The new stations replace stations already stored in that band.

Preset Scan: Scan stations stored in the current band. Select a band (if needed). Press the AMS button (5) momentarily. The radio pauses for five seconds at each preset station. When desired station is reached, press the AMS button again to stop scanning.

Preset Stations

Six numbered preset buttons store and recall stations for each band.



Select a band (if needed). Select a station by pressing the “TRACK DOWN” or “TRACK UP” (16) button. Press and hold any of the preset buttons for three seconds to memorize the station. The preset number will appear in the display.

Recall a Station

Select a band (if needed). Press one of the six preset buttons to select a stored station.

Mono/Stereo

Changes FM radio reception from Mono (MONO will be displayed) to Stereo (STEREO will be displayed).

Sound Controls

Audio Control Knob

By pressing the audio control knob (4), the modes will be displayed in the following order: Volume, Bass, Treble, Balance and Fader.

Volume

Turn the Audio Control Knob (4) clockwise to increase the volume and counterclockwise to decrease the volume.

Bass

Press Audio Control Knob (4) two times. Turn the Audio Control Knob clockwise to increase the bass and counterclockwise to decrease the bass.

Treble

Press Audio Control Knob (4) button three times. Turn the Audio Control Knob clockwise to increase the treble and counterclockwise to decrease the treble.

Balance

Press Audio Control Knob (4) button four times. Turn the Audio Control Knob clockwise to increase the balance to the right and counterclockwise to increase the balance to the left.

Fader

Press Audio Control Knob (4) button five times. Turn the Audio Control Knob clockwise to increase the balance to the front speakers and counterclockwise to increase the balance to the rear speakers.

Loud

Enhances high frequency and low frequency sound quality. Press and hold the button “BAND/LOUD” button (13) for more than one second. Either “LOUD ON” or “LOUD OFF” will appear in the display. Select the desired mode.

Equalizer

Press “EQ” button (17) to select preprogrammed equalizer settings in the following order: FLAT, CLASSICS, POP M (Pop), and ROCK M (Rock).

General Operations

Power

Press the "POWER" button (1) to turn the unit On/Off.

Audio BEEP

Press and hold the Audio Control knob (4) for 3 seconds. Either BEEP OFF or BEEP ON will appear in the display. Rotate the Audio Control knob for the desired mode:

BEEP OFF = No beeps when buttons are pushed.
BEEP ALL = Beeps when any button is pushed.

Mute

Press the "MUTE" button (15) to mute audio level. Press again to release this function.

Setting the Clock

Press the "DISP" button (18) so the clock is displayed. Press the button again and hold for 3 seconds until the time flashes, then release. Then press the "TRACK DOWN" button (16) to adjust the minutes, or press the "TRACK UP" button to adjust the hours.

Auxiliary Input Jack (Front Panel)

Plug an audio device into this jack (3). This allows you to listen to an auxiliary audio source (MP3 player, portable cassette player, etc). Connect the proper cable (not supplied with this unit). Press the "MODE" button (14) to access the auxiliary audio device in Auxiliary Input Mode.

Auxiliary Input Mode

Press the "MODE" button (14) to access the auxiliary audio device in Auxiliary Input Mode. "AUX" will be displayed.

External CD Changer Input Mode

Press the "MODE" button (14) to access an External CD Changer Input Mode, "CDC" will be displayed (only available if an external CD changer is plugged into 6-Pin DIN connector).

CD Player Operation

Inserting and Ejecting a CD

Push a CD into the CD Slot, label side up, and the CD will begin to play.

Press the "EJECT" button (21) to stop CD play and eject the CD from the slot.

Select Tracks

Press the "TRACK DOWN" or "TRACK UP" button (16) for less than a second to move to the previous or next track. The track number appears in the Display Area.

Fast Forward and Fast Reverse

Press the "TRACK DOWN" or "TRACK UP" button (16) for more than one second to fast forward or fast reverse. CD play starts from when you release the button.

Pause Disc Play

Press the "PAUSE" button (15) to pause CD play. Press it again to resume play.

Mode Button

Press the "MODE" button (14) while in CD Mode to change to Radio, Auxiliary or CD Changer Mode.

Repeat the Same Track

Press the "REPEAT" button (9) to continuously repeat the same track. Press it again to stop Repeat.

Play All Tracks in Random Order

Press the "SHUFFLE" button (10) to play all tracks on the current CD in random order. Press it again to stop playing in random order.

Intro Scan

Press the "INTRO" button (8) to play the first ten seconds of each track. Press it again to stop Intro Scan and listen to the track.

Notes on CD-Rs and CD-RWs

- The unit cannot play a CD-RW that is not finalized (please refer to the manual of your CD-R/CD-RW recorder or CD-R/CD-RW software for more information on the finalizing process).
- This unit will not play MP3 music or WMA music recorded on any CD-R or CD-RW disc.
- Be sure to only use discs with the following labels in this unit:

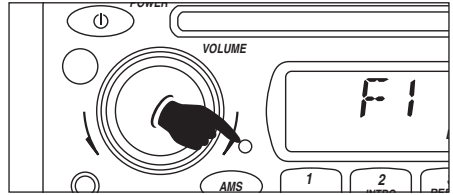


Specialty Features

Reset Button

The radio panel or LCD display may fail to function normally due to the vehicle's battery condition, and may require resetting the radio microprocessor if:

- The vehicle has been "jump started" from a dead battery condition
- The vehicle battery becomes very low and is quick-charged
- The vehicle battery is removed and replaced



Should this condition occur, simply press and release the **RESET** button on the radio panel using the tip of a ball point pen. This will reset the radio microprocessor to the original factory settings. After pressing the **RESET** button you should recheck to see if the radio functions normally. All station programming should remain, but you will have to reset the clock. Should the LCD display area show any abnormal error code, please refer to the trouble shooting guide and solution chart below.

Error Code	Problem	Description	Possible Remedy
ERR 1	Mechanism Problem	Unknown mechanical problem with the CD mechanism.	<ol style="list-style-type: none"> 1. Eject the disc and try another. 2. Press the reset button. 3. Replace the unit.
ERR 2	TOC Reading Error	Laser can not read the CD disc table of contents.	<ol style="list-style-type: none"> 1. Insert a different disc. 2. Check disc for excessive scratches. 3. Check disc for dirt and fingerprints. Clean disc and reinsert.
ERR 3	Error from High Ambient Temp.	The temperature of the mechanism is too high to play CDs without damaging them.	Reduce the temperature inside the vehicle and try to play a CD at a later time.
ERR 4	Laser Focus Error	Laser pickup fails to focus and read the disc.	<ol style="list-style-type: none"> 1. Insert a different disc. 2. Check disc for excessive scratches. 3. Check disc for dirt and fingerprints. Clean disc and reinsert. 4. Press the reset button.
ERR 6	CD Loading Error	The loading mechanism is damaged.	<ol style="list-style-type: none"> 1. Push the reset button. 2. Replace the unit.
ERR 7	Laser Servo Error	Laser servo is not functional.	<ol style="list-style-type: none"> 1. Press the reset button. 2. Replace the unit.

Installation Procedures

Step 1: The radio chassis is designed to be “Sleeve Mounted” through a opening in the dashboard panel. The required opening size is 182mm (7-3/16”) x 84mm (3-5/16”). Cut or enlarged an opening in the dashboard to accommodate the mounting sleeve.

Step 2: If you are replacing an existing factory installed radio, an adapter harness might be available for your vehicle to eliminate the need for cutting your factory wiring. Contact Radio Shack or other car stereo installation centers for the availability of a harness for your vehicle.

Step 3: Insert the mounting sleeve into the hole in the dashboard. Bend the metal tabs on the sleeve to secure the mounting sleeve to the dashboard.

Step 4: Bring all wiring for the connection of the unit (including the antenna) through the center of the mounting sleeve. Connect the wiring as follows:

Yellow Wire: Connect this wire to a constant +12 volt power source (a power source that is not controlled by the ignition key).

Red Wire (w/Fuse): Connect this wire to a switched +12 volt power source (a power source turned on and off by the ignition key).

Blue Wire: Connect this wire to the (+) power antenna activation circuit. If no power antenna exists, tape-off the end of this wire to prevent shorting out the unit.

Black Wire: Connect this wire to the frame of the vehicle (ground). This wire is the chassis grounding wire for the unit.

White Wire: Connect this wire to the Left Front Speaker (+) positive terminal or wire.

White Wire with Black Stripe: Connect this wire to the Left Front Speaker (-) negative terminal or wire.

Green Wire with Black Stripe: Connect this wire to the Left Rear Speaker (-) negative terminal or wire.

Green Wire: Connect this wire to the Left Rear Speaker (+) positive terminal or wire.

Gray Wire: Connect this wire to the Right Front Speaker (+) positive terminal or wire.

Gray Wire with Black Stripe: Connect this wire to the Right Front Speaker (-) negative terminal or wire.

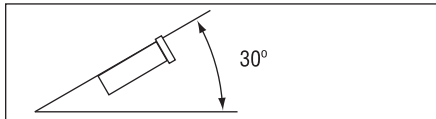
Purple Wire with Black Stripe: Connect this wire to the Right Rear Speaker (-) negative terminal or wire.

Purple Wire: Connect this wire to the Right Rear Speaker (+) positive terminal or wire.

Gray Cable with Red/White RCA Connectors: Provides Left and Right Channel audio signal output for input to an additional amplifier.

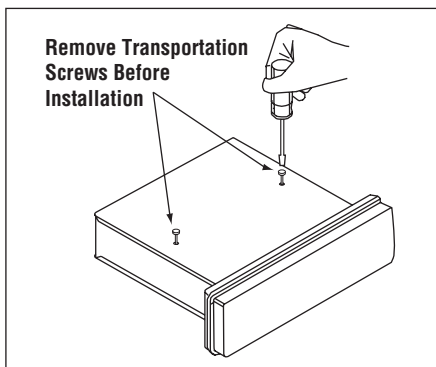
Note 1: This unit is designed to connect to (4) four speakers. If the installation only requires (2) two speakers, use the White and Gray wire sets to connect the speakers.

Note 2: If installation angle exceeds 30 degrees from horizontal, the unit might not give its optimum performance.



Note 3: Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

Remove Transportation Screws: Before installing the unit, please remove the two screws shown in the illustration below.



WARNING!

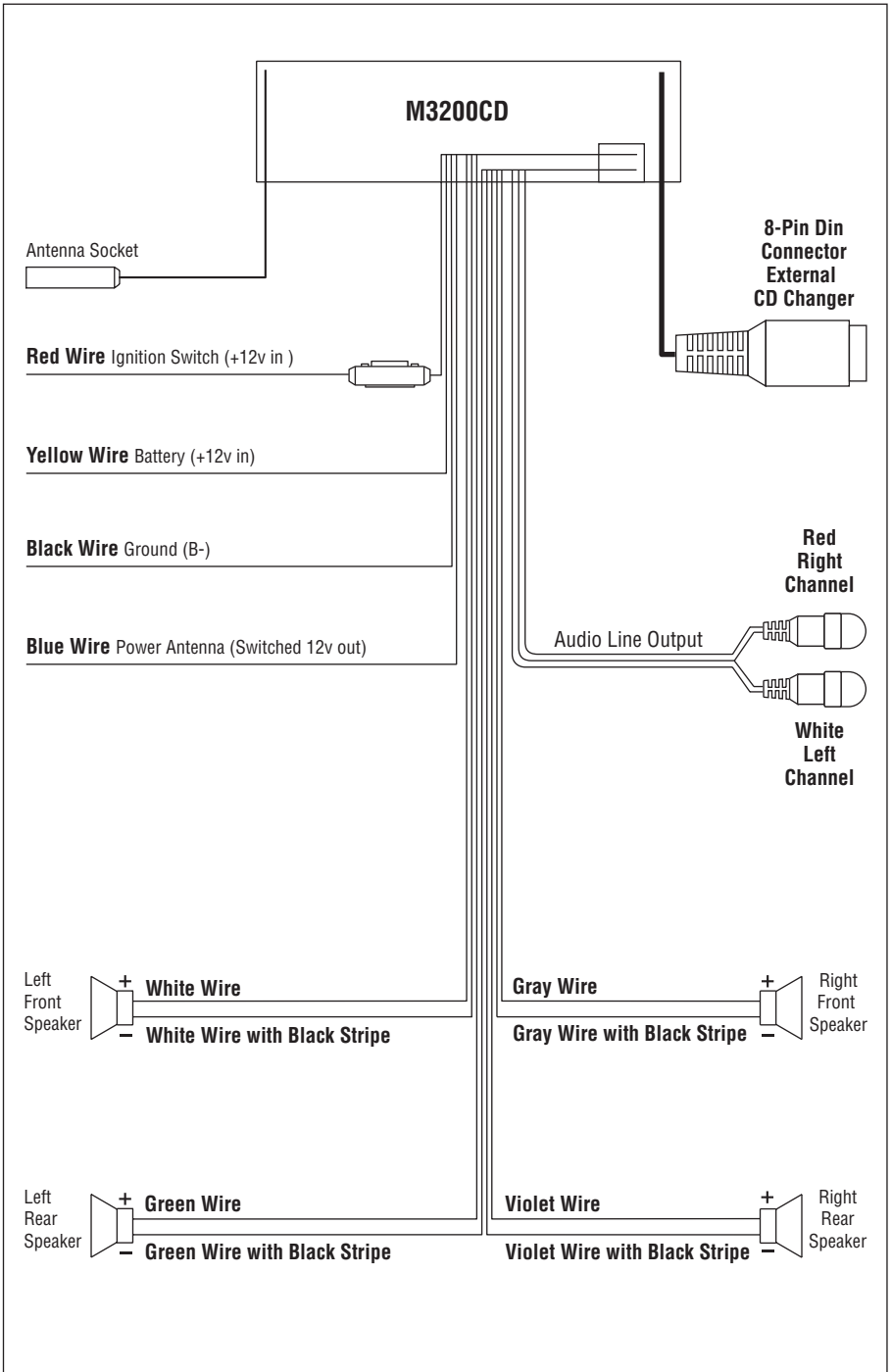
Any wires left unconnected must be taped-off or capped-off to prevent shorting.

DO NOT connect speaker ground wires together.
DO NOT connect speaker ground wires to the chassis of the vehicle.

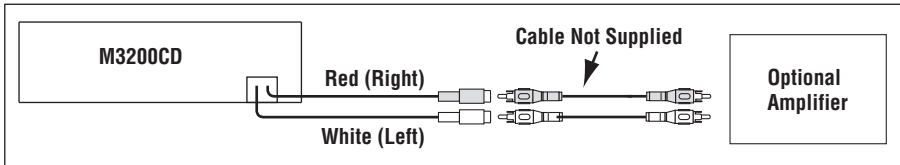
DO NOT connect front and rear speaker wires together.

FAILURE TO FOLLOW ANY OF THESE WARNINGS WILL RESULT IN DAMAGE TO THIS UNIT AND VOIDS THE WARRANTY.

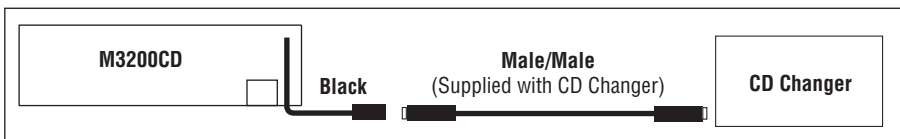
Wiring Diagram



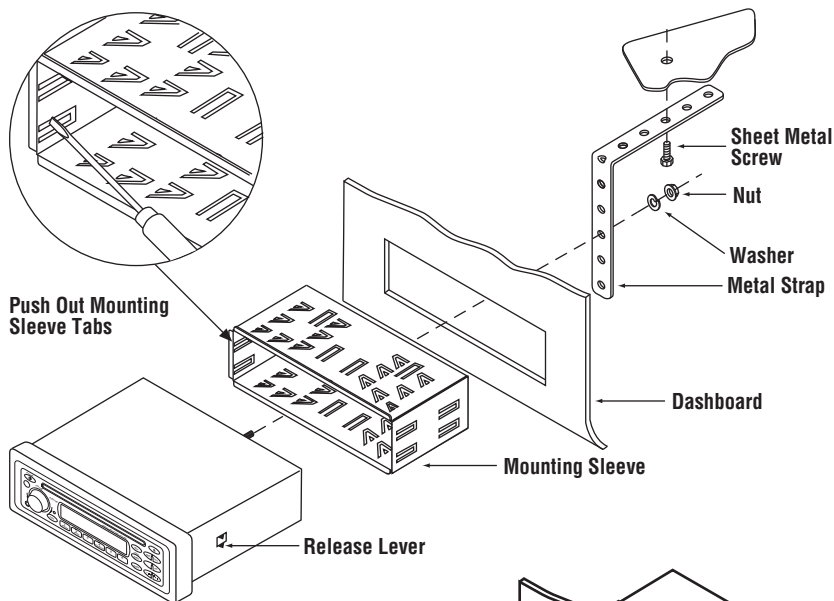
Audio Line Out Connection



CD Changer Connection

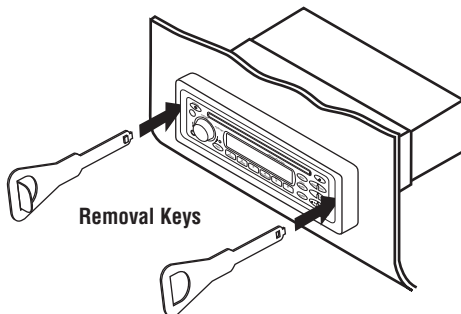


Final Installation - Method A



Removing the Unit from Dashboard:

1. Remove the metal strap holding the back of the radio chassis.
2. Insert the removal keys into the small slots on the left and right side of chassis panel.
3. Push the removal keys until they engage the release levers.
4. Pull the unit out.



Final Installation - Method B

DIN Rear-Mount

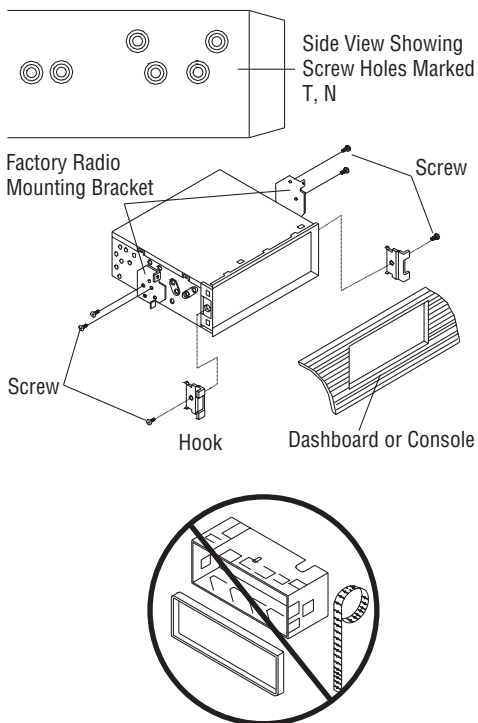
If your vehicle is a Nissan or Toyota, follow these mounting instructions:

Use the screw holes marked T (Toyota), N (Nissan) located on both sides of the unit to fasten the unit to the factory radio mounting brackets supplied with your vehicle.

To fasten the unit to the factory radio mounting brackets.

1. Use a screwdriver to loosen the hook's screws on the front left and right sides of the unit and remove the hooks.
2. Align the screw holes on the bracket with the screw holes on the unit, and then tighten the screws (5 x 5mm) on each side.

Note: The outer trim ring, sleeve and the metal strap are not used for Method B installation.



Specifications

CD Player

Signal/Noise Ratio > 86 dB
 Frequency Response 20 Hz – 20 kHz
 Channel Separation > 65 dB
 D/A Converter 1 Bit/CH

FM Tuner

Tuner Range 87.5 – 107.9 MHz
 FM Mono Sensitivity 12 dBf
 50 dB Quieting Sensitivity (Stereo) 16 dBf
 Stereo Separation @ 1 kHz 40 dB

AM Tuner

Tuner Range 530 – 1720 kHz

Amplifier

Total System Power 160 Watts Peak
 Power Output 4 x 40W

General

Power Supply . . . 11-16 VDC, Negative Ground
 Speaker Output Impedance 4 – 8 Ohms
 Fuse 15 Amp Fast Blow ATO
 Dimensions7" x 7" x 2"
 178 mm (W) x 178 mm (D) x 55 mm (H)

Specifications are subject to change without notice.

Warranty

ONE (1) YEAR LIMITED WARRANTY

Magnadyne Corporation or its authorized agents will within one year from the date of sale to you, repair, replace or refund the retail sales price of said product or any part thereof, at the option of the Magnadyne Corporation or its authorized agents, if said product or part is found defective in materials or workmanship, when properly connected and operating on the correct power requirements designated for the specific product. This warranty and Magnadyne Corporation or its authorized agents obligations hereunder do not apply where the product was; damaged while in the possession of the consumer, subjected to unreasonable or unintended use, not reasonably maintained, utilized in commercial or industrial operations, or serviced by anyone other than Magnadyne Corporation or its authorized agents, or where the warning seal on the product is broken or the power and/or plugs are detached from the unit. Magnadyne Corporation or any of its authorized agents will not assume any labor costs for the removal and reinstallation of any product found to be defective, or the cost of transportation to Magnadyne Corporation or its authorized agents. Such cost are the sole responsibility of the purchaser.

This warranty does not cover the cabinet appearance items or accessories used in connection with this product, or any damage to recording or recording tape, or any damage to the products resulting from improper installation, alteration, accident, misuse, abuse or acts of nature.

MAGNADYNE CORPORATION OR ITS AUTHORIZED AGENTS SHALL NOT BE LIABLE TO ANYONE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR CLAIMS EXCEPT THOSE ACCORDED BY LAW. NO EXPRESSED WARRANTY OR IMPLIED WARRANTY IS GIVEN EXCEPT THOSE SET FORTH HEREIN. NO IMPLIED WARRANTY SHALL EXTEND BEYOND ONE YEAR FROM THE DATE OF SALE.

This warranty extends only to the original purchaser of the product and is not transferable. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

Defective merchandise should be returned to the original point of purchase or secondly, to:

Magnadyne Corporation
1111 W. Victoria Street
Compton CA 90220

www.magnadyne.com

Return Authorization must be obtained before sending, or merchandise may be refused.